

L 01805-66 EWT(d)/FSS-2/EWT(1)/EEG(k)-2/FCC/EEC-4/EWA(h) TT/AST/GW

ACCESSION NR: AP5020829

UR/0020/65/163/004/0873/0876

AUTHOR: Bezrukikh, V. V.; Gringauz, K. I.; Musatov, L. S.; Rybchinskiy, R. Ye.; Khokhlov, M. Z.

TITLE: Study of solar plasma flow by the Zond-2 interplanetary station

SOURCE: AN SSSR. Doklady, v. 163, no. 4, 1965, 873-876

TOPIC TAGS: solar radiation, plasma measurement, plasma flow, ion trap, particle detector/Zond 2

ABSTRACT: An investigation of solar plasma flow was made to confirm the hypothesis that a correlation exists between the rate of solar plasma flow and the Kp index characterizing geomagnetic disturbances. Solar plasma flow was measured by Zond-2, equipped with modulation and integral particle traps. The latter were modified to measure electron and positive ion flux with energies in excess of 70 ev and 50 ev, respectively. The modulation trap, similar to the one used on Explorer-10, had a modulating grid supplied by two voltages: a d-c voltage assuming consecutively 8 values between 230 and 3200 v,

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and a rectangular a-c voltage of 450 v with a modulating frequency of 1000 cps. Electron emission from the collector was suppressed by a grid with a 70-v potential with respect to the body of the satellite. An alternating component of the collector current, proportional to the magnitude of the positive-ion flow, was recorded by a resonance amplifier adjusted to the modulation frequency. The instrument was capable of sensing positive ion flow within the range of 10^7 to 2.5×10^9 $\text{cm}^{-2}\text{sec}^{-1}$. Recording of positive-ion flow of $E > 70$ ev was aided by a d-c amplifier in the trap circuit. During the flight of Zond-2, the modulation trap was directed toward the Sun. When a deviation occurred, a correction was automatically made in the readings based on a study of the angular characteristics of the trap in the laboratory. On 7 Dec 1964, solar plasma flow was recorded at 1.5×10^9 $\text{cm}^{-2}\text{sec}^{-1}$, coinciding with the geomagnetic storm which occurred on the same date. This value was reached only during strong magnetic storms and tended to confirm the correlation between the K_p index and solar plasma flow. The use of particle traps capable

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of direct determination of positive-ion flow gave better results than
the electrostatic analyzer on Mariner-2. Orig. art. has: 2 [TS]
figures.

ASSOCIATION: Radiotekhnicheskiy institut Akademii nauk SSSR (Radio
Engineering Institute, Academy of Sciences, SSSR) 55

SUBMITTED: 29Apr65

ENCL: 00

SUB CODE: AA,SV

NO REF SOV: 002

OTHER: 006

ATD PRESS: 4085

Card

3/3 90

L 22189-66 EPF(n)-2/EWA(h)/EWT(1)/ETC(f)/EWG(m)/FCC IJP(e) AT/GW

ACC NR: AP6002857

SOURCE CODE: UR/0286/65/000/024/0006/0006

AUTHOR: Gringauz, K. I.; Bezrukikh, V. V.; Ozerov, V. D.; Rybchinskiy, R. Ye.

ORG: none

TITLE: Plasma layer near the Earth

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 6

TOPIC TAGS: charged particle, plasma sheath, plasma density, plasma charged particle, upper atmospheric radiation

ABSTRACT: This Author Certificate announces the establishment of the existence (at heights of approximately from 2000-20,000 kilometers above the surface of the earth) of a previously unknown region of the earth's plasma sheath. This sheath has an increased concentration of charged particles (in respect to the interplanetary gas) which decreases with height. The magnitude of the negative gradients of the charged particle concentrations in the upper part of this region consists of some hundreds of particles in $1 \text{ cm}^3/1000 \text{ km}$ of height. The concentration near the upper boundary of the region does not exceed 10^2 particles/ cm^3 . Announcement of

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ACC NR: AP6002857

the change in the formulation of discovery. On the basis of the decision of the Committee for the Affairs of Inventions and Discoveries at the Council of Ministers, SSSR, the new text is published. No. 27 (Application No. OT-2821 of 16 February 1963)7

SUB CODE: 04/ SUBM DATE: 16Feb63

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nst

L 1540-66 FSS-2/EWT(1)/EWT(m)/FS(v)-3/EPF(c)/FCG/EWA(h) RPL TT/WW/GS/GJ
 ACCESSION NR: AT5023577 UR/0000/65/000/000/0151/0167

AUTHOR: Afonin, V. V.¹⁵; Breus, T. K.¹⁵; Gdalevich, G. L.¹⁵; Gorozhankin, B. N.¹⁵;
 Rybchinskiy, R. Ye.; Gringauz, K. I.

TITLE: Kosmos-2 ionosphere experiments

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow,
 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii.
 Moscow, Izd-vo Nauka, 1965, 151-167

TOPIC TAGS: artificial earth satellite, ionosphere, ionosphere composition, iono-
 spheric plasma, ion temperature, electron temperature, ion trap, honeycomb trap,
 metal photoemission, F region, Kosmos 2

ABSTRACT: The Kosmos-2 artificial earth satellite, launched on 6 April 1962 into
 an orbit from 49°N to 49°S (perigee ~212 km and apogee ~1546 km), was intended for
 the structural study of the ionosphere and the attendant characteristic processes
 therein. In addition to a direct telemetering system, information storage equip-
 ment was installed on board the satellite. The principal tasks of the satellite were:
 1) to remeasure the ion concentration and the chemical composition of the ionospheric
 region from 500 to 1000 km (first done in 1958 by the third Soviet Sputnik) during

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a period of decreased solar activity; 2) to investigate the ionospheric regions above 1000 km under nocturnal and twilight conditions; 3) to measure the positive ion temperature by means of a new method using honeycomb-type ion traps with a very narrow directivity pattern; 4) to sound both the ion and electron components of the ionospheric plasma in order to measure the electron temperature and concentration (from ~212 to 600 km) by means of cylindrical Langmuir probes; and 5) to use a system of plane ion-traps for determining the satellite attitude with respect to its velocity vector. A honeycomb-type ion trap is shown in Fig. 1 of Enclosure. It consists of three electrodes (collector, antiphotocurrent grid for suppressing photocurrent on collector surface, and an external honeycomb cap, connected to the satellite). The maximum current in such a trap is achieved when the velocity vector of the incident ion beam is normal to the collector. In addition to the above experiments, measurements of the variation in photoemission from metals (due to the short-wave solar radiation in the frequency region near the ionization maximum of the F-region) were made to determine the total ultraviolet absorption in the F-region. It is stated that the experimental results from the Kosmos-2 mission will be helpful in preparing new ionospheric studies. Orig. art. has: 1 table, 6 formulas, and 15 figures. [YK]

ASSOCIATION: none

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L 1540-66

ACCESSION NR: AT5023577

SUBMITTED: 02Sep65

ENCL: 01

SUB CODE: ES, CV

NO REF SOV: 007

OTHER: 014

ATD PRESS: 4094

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4
RYBCHINSKIY, R.YE.

GRINGAUZ, K.I., BEZHUKIN, V.V., MUSATOV, L.S., RYBCHINSKIY, R.YE.,
SHERONOVA, S.M.

Measurement made in the Earth's Magnetosphere by means of Charged Particle
traps aboard the Mars 1 Probe.

Report to be submitted for the 4th International Space Science Symposium
(COSPAR) Warsaw, 2-12 June 63

GRINGAUZ, K.I.; BEZRUKIKH, V.V.; BALANDINA, S.M.; OZEROV, V.D.;
RYBCHINSKIY, R.Ye.

Direct observation of solar plasma streams at a distance about
1,900,000 km. from the earth on February 17, 1961, and
simultaneous observations of the geomagnetic field. Isk. sput.
Zem. no. 15:98-101 '63. (MIRA 16:4)

(Solar radiation) (Plasma (Ionized gases))
(Magnetism, Terrestrial—Observations)

3. 9000
3. 2100

80082
S/020/60/131/06/20/071
B014/B007

AUTHORS: Gringauz, K. I., Bezrukikh, V. V., Ozerov, V. D., Rybchinskiy, R. Ye.

TITLE: The Investigation of the Interplanetary Ionized Gas of High-energy
Electrons and the Corpuscular Emission of the Sun by Means of Three-
Electrode Catchers for Charged Particles in the Second Soviet Cosmic
Rocket

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 131, No. 6, pp. 1301 - 1304

TEXT: During the flight of the rocket the currents generated by the charged particles in the catchers were measured and recorded. For this purpose four three-electrode catchers were fitted, each of which consisted of a semispherical nickel net (radius 30 mm), under which a plane nickel collector was fitted. Between these parts a tungsten net was fitted. The potentials on the electrodes are given and the scheme of the catcher is shown in Fig. 1. The task to be performed by the tungsten net was to prevent the photoelectric effect caused by irradiation by the Sun. The electrons, which moved which sufficient energy to overcome the retarding field between the nets, generated a negative collector current. For the purpose of selecting the characteristic of the apparatus, the following was assumed with

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The Investigation of the Interplanetary Ionized Gas of High-energy Electrons and the Corpuscular Emission of the Sun by Means of Three-electrode Catchers for Charged Particles in the Second Soviet Cosmic Rocket

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B014/B007

respect to the interplanetary medium: There exists a steady gas medium (plasma) of mainly ionized hydrogen with a concentration of $n_1 = 5 \cdot 10^2 + 10^3 \text{ cm}^{-3}$ and an electron temperature of $10^4 \text{ }^\circ\text{K}$; there exist only sporadic corpuscular streams of protons and electrons with velocities of $(1 + 3) \cdot 10^8 \text{ cm} \cdot \text{sec}^{-1}$ and concentrations of $n_1 \approx 1 + 10 \text{ cm}^{-3}$, in some cases up to 10^3 cm^{-3} . It was possible to record positive collector currents of from 10^{-10} a to $50 \cdot 10^{-10} \text{ a}$, and negative collector currents of from 10^{-10} a to $15 \cdot 10^{-10} \text{ a}$. Recordings are shown in Figs. 2, 3, and 4. The following conclusions are drawn herefrom: 1) At a distance from the Earth of up to four equatorial semidiameters there exists a plasma with a temperature of not more than several tens of thousands of degrees. Thus, the results obtained by means of the first and third cosmic rocket were confirmed. 2) Within a range of from 55,000 to 75,000 km from the Earth, an electron flux of the density of $10^8 \text{ cm}^{-2} \cdot \text{sec}^{-1}$ was found to exist, with energies exceeding 200 ev. 3) From the positive collector currents recorded in all four catchers the authors conclude

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The Investigation of the Interplanetary Ionized Gas of S/020/60/131/06/20/071⁸⁰⁰⁸²
High-energy Electrons and the Corpuscular Emission of B014/B007
the Sun by Means of Three-electrode Catchers for Charged Particles in the Second
Soviet Cosmic Rocket

that there exists a flux of positive ions with more than 15 ev and a density of $2 \cdot 10^8 \text{ cm}^{-2} \cdot \text{sec}^{-1}$. In conclusion, the authors draw attention to the proton fluxes with energies higher than 25 ev, which were found to exist by the automatic interplanetary station in October 1959. There are 4 figures and 4 references, 2 of which are Soviet.

ASSOCIATION: Radiotekhnicheskiy institut Akademii nauk SSSR (Radiotechnical
Institute of the Academy of Sciences, USSR)

PRESENTED: February 11, 1960, by A. L. Mints, Academician

SUBMITTED: February 5, 1960

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9.9100 (also 2605)

25988

S/560/61/000/006/006/010

E032/E114

11.1530

AUTHORS: Gringauz, K.I., Bezrukikh, V.V., Ozerov, V.D., and Rybchinskiy, R.Ye.

TITLE: A study of the interplanetary ionized gas, energetic electrons and solar corpuscular emission using three-electrode charged-particle traps on the second Soviet cosmic rocket

PERIODICAL: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. No. 6. Moscow, 1961. pp. 101-107

TEXT: This paper was first published in Doklady AN SSSR, Vol.131, p.1301 (1960).

The first, second and third Soviet space rockets carried three-electrode charged-particle traps. The most valuable data were obtained with the second space rocket (12000 collector current measurements). The present paper is therefore largely concerned with the data obtained during the latter flight. The space rocket which was fired in the direction of the moon on September 12 1959 carried equipment designed to measure interplanetary ionized gas, electrons with energies in excess of 200 eV, and also the corpuscular solar radiation. Four three-electrode traps were set
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S/560/61/000/006/006/010

E032/E114

A study of the interplanetary ionized...

up on the surface of the space probe and were located at the corners of a tetrahedron inscribed into a sphere. Each trap consisted of a hemispherical outer nickel grid (radius 30 mm) with a plane nickel collector inside the grid. A plane tungsten grid was placed between the collector and the outer grid. The arrangement is illustrated in Fig.1. The potentials of the electrodes relative to the body of the container were: collectors - (60-90) volts, inner grids (g1) - 200 volts, outer grids (g2) - 10, -5, 0 and + 15 volts respectively. The main function of the inner grid was to suppress the photoelectrons from the collectors which are ejected by ultraviolet solar radiation, and to suppress the secondary electron emission due to the bombardment of the collectors by electrons and protons. The various potentials were applied to the outer grids in order to be able to estimate the energy of positive particles and to differentiate between current produced by protons of the interplanetary stationary plasma (~ 1 eV) and current due to protons in corpuscular streams whose energies are higher by three orders of magnitude. Electrons belonging to the stationary plasma, and solar corpuscular streams with energies up to 25 eV do not give rise to a collector

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E032/E114

current since they cannot overcome the retarding field due to the potential difference between the inner and the outer grids. On the other hand, electrons moving in the earth's magnetic trap (the so-called outer radiation belt) do have sufficient energy to overcome the field between the two grids and can give rise to a negative collector current. The collector current amplifiers were sufficient to transmit information about the magnitude of the positive collector currents in the range 10^{-10} - 50×10^{-10} amp and negative collector currents in the range 10^{-10} - 15×10^{-10} amp. During its translational motion the container also performed complicated and rapid rotational motion. The angular position of each trap was therefore subject to continuous variation giving rise to oscillations in the collector current. This is illustrated in Fig.2, which gives a plot of the collector currents as a function of distance R (km) for the trap with $\phi_{g2} = -10$ volt. The maximum and also the minimum values correspond to roughly the same orientations. Thus, changes in the collector current which are mainly due to the surrounding medium can be described by curves passing through points corresponding to the successive maxima and minima in the collector current. In this way, the rotation of the

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container can, at least to some extent, be excluded. Consideration of the experimental data has led to the following conclusions. A plasma having a temperature not greater than some tens of thousands of degrees was present at distances of up to 4 earth radii from the earth's surface. The estimates of the concentration of the plasma are given by K.I. Gringauz, V.G. Kurt, V.I. Moroz and I.S. Shklovskiy in Ref.5 (page 108 of the present issue). In the region between 55000 and 75000 km an electron flux of about $10^8 \text{ cm}^{-2}\text{sec}^{-1}$, which consisted of electrons having energies in excess of about 200 eV, was recorded. The existence of such an electron flux in this region is confirmed by results obtained with the first space rocket in January 1959. Beginning at 9 hr 30 min Moscow time, on September 13 1959 and right up to the impact on the lunar surface, the probe passed through a positive ion stream (probably protons). The energies of these particles were in excess of 15 eV and the flux was about $2 \times 10^8 \text{ cm}^{-2}\text{sec}^{-1}$. The existence at various times of a stream of protons with energies in excess of 25 eV was discovered with the aid of similar apparatus at various distances from the earth during the flight of the Automatic Planetary Station during October 1959. These protons apparently

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S/560/61/000/006/006/010
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A study of the interplanetary ionized...
belong to solar corpuscular emission. These results therefore
constituted the first direct observation of corpuscular radiation
outside the earth's magnetic field.
There are 4 figures and 5 references: 3 Soviet and 2 non-Soviet.
The English language reference reads as follows:
Ref.3: L. Bierman. The Observatory, V.77, 187, 1957.

Card 5/7.

TSVETKOV, V.N., kand.tekhn.nauk, dotsent; RYBCHINSKIY, V.D., inzh.

Effect of the moisture of sole parts leather on the contact stress
in the mechanical joints of shoe soles. Nauch.trudy MTILP no.18:
76-90 '60. (MIRA 15:2)

1. Kafedra tekhnologii izdeliy iz kozhi Moskovskogo tekhnologicheskogo
instituta legkoy promyshlennosti.
(Leather) (Strains and stresses)

TSVETOV, V.M., kand. tekhn. nauk, dotsent; RYBCHENKIN, V.D., inzh.

Characteristics of the effect of moisture on leather shrinkage.
Izv. vys. ucheb. zav.; tekhn. leg. prom. no. 4:96-106 '61.

(NIPA 14:10)

1. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti.
(Leather—Testing)

RYBCHINSKIY, V.P., elektrik

Improvement of the MZ-2 electric bell. Energetik 13 no.11:29
N '65. (MIRA 18:11)

RYBCHINSKIY, Yu.

It is impossible to conceal an atomic explosion. NTO 4 no.10:
44-46 0 '62. (MIRA 15:9)

(Atomic bomb--Testing)

RYECHINSKIY, Yu.

A surgeon confers with an engineer. NTO 4 no.8:60-61 Ag '62.
(MIRA 15:8)

(Orthopedic apparatus)

RYBCHINSKIY, Yu.

Master learns to count. Tekh. mol. no.5:6-7 My '62. (MIRA 15:6)
(Technological innovations)
(Efficiency, Industrial)

RYBCZYNSKI, A.

Etiology of malignant neoplasms. Polski tygod. lek. 7 no.22:720
2 June 1952. (CML 23:2)

1. Of the First Surgical Department (Head--Prof. Kazimierz Nowakowski,
M.D.) of Poznan Municipal Hospital.

RYBCZYNSKI, Anatol; ZBIGNIEW, Leja

Changes of serum proteins following experimental excision of liver tissue.
Polski przegl. chir. 30 no.5:558-562 May 58.

(BLOOD PROTEINS,

eff. of exper. hepatectomy (Pol))

(LIVER, effect of excis.

on blood proteins in dogs (Pol))

RYECZYNSKI, J.

RYECZYNSKI, J. Some theoretical problems in the construction of plows.
p. 34.

Vol. 29, no. 9, Sept. 1955

LAS POLSKI

AGRICULTURE

Poland

So: East European Accession, Vol. 6, No. 5, May 1957

SKORCZYNSKI, Marian; GLOWINSKI, Mieczyslaw; RYBCZYNSKI, Jerzy; LIMANSKI,
Marian

Behavior of transaminases (SGOT and SGPT) in hemolytic disease
of the new born. Pol tyg. lek. 18 no.46:1709-1713 11 N '63.

1. Z Wojewodzkiej Przychodni Immunologii Ciąży i Noworodka w
Katowicach; (kierownik: dr. med. M. Skorczynski) i z Kliniki
Położnictwa i Chorob Kobietych Sl. AM (kierownik: prof. dr.
M. Glowinski).

*

SKORCZYNSKI, Marian; RYBCZYNSKI, Jerzy

Our method of exchange transfusion in hemolytic disease of the newborn. Ginek. pol. 34 no.4:481-485 '63.

1. Z Ośrodka Immunopatologii ciąży i noworodka w Katowicach
Kierownik: dr med. M. Skorczyński.
(ERYTHROBLASTOSIS, FETAL)
(EXCHANGE TRANSFUSION)

RYBENKOV, D.A.

Attachment for cutting coarse-pitch thread. Stan.i instr. 34 no.2:
40-41 F '63. (MIRA 16:5)

(Lathes—Attachments)

RYBERT, V.F., gornyy inzh.; PUSTOVALOV, A.I., gornyy inzh.; PONOMAREV, L.F., gornyy inzh.; YEROFEYEV, I.Ye., gornyy inzh.; YERMOLAYEV, A.G., gornyy inzh.

Making use of industrial potentialities in a mine of communist labor. Gor.zhur. no.1:6-9 Ja '64. (MIRA 17:3)

1. Rudnik imeni XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza Zyryanovskogo kombinata.

RYBERT, V.F.; MAKAREVICH, V.F.

Zyryanovsk open-pit mine. Trudy Alt. GMNII AN Kazakh. SSR 13:
5-12 '62. (MIRA 16:3)

(Zyryanovsk District--Strip mining)

RYBERT, V.F.

Roller boring in mines of the Zyryanovsk Combine. Trudy Alt. GZNI
AN Kazakh SSR 9:167 '60. (MIRA 14:6)

1. Zyryanovskiy polimetallicheskiy kombinat.
(East Kazakhstan Province--Rock drills)

Acoustic properties of asphalt concretes. J. A. Rylov.
Stroitel. Materialy 1937, No. 12, 42-8; *Chem. Zentr.* 1939,
 I, 1230. — Although asphalt concrete contg. large pores is a
 poorer conductor of sound than the fine-pored product,
 nevertheless the former is not suitable for use in practice
 because the mech. strength decreases very rapidly with
 increase in the size of the pores. Tests showed the resist-
 ance to pressure shown by the large-pored concrete was
 15-25 kg./sq. cm., while that of the fine-pored material
 was 40-8 kg./sq. cm. M. G. Moore

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

GROUP 1

GROUP 2

GROUP 3

GROUP 4

GROUP 5

POLAND/General and Special Zoology- Insects.

P-6

Abs Jour : Ref Zhur - Biol., No 5, 1958, 21007

Author : Rybi

Inst :

Title : The Significance of Green Plants in the Life of Insects.

Orig Pub : Ann. Univ. M. Sklodovska, 1954 (1956), C9, No 1-9, 61-138

Abstract : The relation between the amount of food consumed by the insect, the daily increase in the mass of its body and the anatomical structure of the consumed leaves was shown in the larvae of *Mimas tiliae* (Sphingidae) and *Phalera bucephala* (Notodontidae) fed on *Alnus incana*, *Betula verrucosa*, *Tilia platyphyllos*, *Ulmus campestris*, *Acer platanoides*, *Al. glutinosa*, *Carpinus betulus*, *Corylus avellana*, *Fagus silvatica*, *Populus nigra*, *Quercus pedunculata* and *Salix carea*. The size of the palisade tissue cells and the number of the layers of these cells in the leaves were the decisive factors in determining the amount of consumed food.

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tances both of damaged and undamaged cells were utilized. K-ions penetrating the cells through the semi-permeable coating destroyed in the digestive juices changed the pH of such cells resulting in proteinosis. Autolysis took place, and the resulting hydrolyzates of the various cell proteins may be absorbed by the epithelium of the insect's intestines.

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446410005-6"

Card 2/2

RYBIANIN, Z.

A new method packaging reams of paper.

P. 42. (PRZEBUD PAPIERNICZY) (Lodz, Poland) Vol. 13, no. 2, Feb. 1957

EC: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

RYBIANSKI, M.

Patterns and their role in cutting textures, p. 204. (PRZEGLAD SKORZANY, Lodz,
Vol. 8, no. 8, Aug. 1953.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, Jan. 1955,
Uncl.

RYBIANSKI, Z.

RYBIANSKI, Z. The problem of one century. p. 287.

Vol. 12, no. 10, Oct. 1956

PRZEGLAD PAPIERNICZY

PHILOSOPHY & RELIGION

Warszawa, Poland

SO: East European Accession, Vol. 6, No. 3, March 1957

RYBICKA, H.
BIRECKA, H.
SCI BOR-MARCHOCKA, A.

The alkaloids of Lupinus albus and the method of their quantitative determination.
p. 25.
ACTA BIOCHIMICA POLONICA. (Polska Akademia Nauk. Komitet Biochemiczny)
Warszawa. Vol. 6, no. 1, 1959
Poland/

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 6, June 1959
Uncl.

RYBITSKA, Barbara [Rybicka, Barbara]; KRAVTSOVA, I. [translator]

How to reduce fatigue during work. Okhr.truda i sots.strakh.
6 no.2:39-40 F '63. (MIRA 16:2)
(Work) (Fatigue)

BIRECKA, H.; RYBICKA, H.; SCIBOR-MARCHOCKA, A.

Lupinus albus alkaloids and a method of their quantitative determination. Acta biochim. polon 6 no.1:25-36 1959.

1. Zaklad Fizjologii Roslin S.G.G.W. w Warszawie Kierownik: prof. dr H. Birecka.

(ALKALOIDS, determ.

Lupinus albus alkaloids (Pol))

RYBICKA, Hanna

Sparteine and lupanine decomposition by soil microorganisms.
Acta agrobot 16:23-39 '64.

1. Laboratory of Metabolism of the Institute of Plant Physiology
of the Polish Academy of Sciences, Warsaw. Submitted November 18,
1963.

REBIŃKA J., KOTIS J. H., TRINEL P.

Analiza wpływu penicyliny na wytwarzanie hemolizyn przez lasoczki
zgorzeli gazowej. [Analysis of the effect of penicillin on hemotoxin
production by *Clostridium perfringens* type A] Med. dosw. mikrob.
1:4 1949 p. 556-78.

1. Of the National Institute of Hygiene in Warsaw.
GML Vol. 20 No. 2 Feb 1951

11C

Influence of sulfonamides, *p*-aminobenzoic acid (PABA), procaine, and *p*-aminosalicylic acid (PAS) on the hemotoxin production by *Clostridium perfringens*. Henryk Meisel, Irena Rybicka, and Paula Meisel (P. Z. H., Warsaw, Poland) *Med. Doświad. i Mikrobiol.* 1, 559-601 (1949) (English summary); cf. C. I. 45, 00064. Sulfonamides (1) at concn. 0.15 mg./ml. to 100 mg./ml. were tested on 5 strains of *C. perfringens* growing in a meat-infusion broth, with 1% peptone, 0.5% NaCl and 1% added glucose (pH 7.5). Sulfathiazole, "phthiazol," and marfanil were most active, but varied in effectiveness from strain to strain. I exerted a bacteriostatic action only; no flocculation occurred. Some do not affect the toxin production, some lower it. Contrary to penicillin they never increase toxin production. There was no direct relationship between the diminished toxin titer and the effect on cell growth. Dialysis of the peptone to remove sulfa antagonists did not affect the above results. PABA lowered the titer, it had a synergistic effect when added together with I, no competition was observed. Procaine and PAS acted in a similar way.

I. Z. Roberts

1. Cf. the Nat. Inst. of Hygiene.
Warsaw.
CMIH Vol 20, No. 2, Feb 51.

1957

RYBICKA, I,

Differential diagnosis of *Clostridium perfringens* based on certain biochemic group properties. Med.dosw.Mikrob. 2 no.2:240-241 1950. (GLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Warsaw.)

MEISEL, H.; RYBICKA, I.; MEISEL, P.

~~Effect of sulfonamide preparations on Clostridium perfringens type~~
Effect of sulfonamide preparations on Clostridium perfringens type
A and on their production of hemotoxins. Med.dosw.Mikrob. 2 no.2:
241 1950. (CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Warsaw.)

MEISEL, H.; RYBICKA, I.; MEISEL, P.

Effect of para-aminobenzoic acid and certain derivatives on *Clostridium perfringens* and on the hemotoxin in culture. *Med.dosw.Mikrob.* 2 no.2:242 1950. (GML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Warsaw.)

RYBICKA I., MEISEL H., ALBRYCHT H.

Przeciwciała aglutynujące *Cl. botulinum*, *Cl. putrificum* i *Cl. sporogenes* w surowicach zdrowych ludzi i niektórych gatunków zwierząt. /Agglutination of *Clostridium botulinum*, *Clostridium putrificum* and *Clostridium sporogenes* by normal human serum and that of certain animals/ Med. dosw. mikrob. 2:3-4 1950 p. 418-33.

1. Of the National Institute of Hygiene in Warsaw.
CML Vol. 20, No. 10 Oct 1951

WISNIA, I.

POLAND/Medicine - Antibiotics

April 51

"The Evaluation of Chloromycetin Preparations of Different Origin" W. Kurylowicz, H. Weisel, P. Heisel, E. Mikolajczyk, I. Niedzwiecka-Trzaskowska, I. Rybicka, E. Wojciechowski, State Inst of Hygiene in Poznan, Inst of Gen and Exptl Pathol, Acad of Med in Poznan.

"Wiedzyzna Doswiadczalna, Mikrobiologia" Vol III, No 4, pp 399-406.

The following chloromycetin preps have been examined: 2 of Polish origin, "Krakow" and "Warszawa," and one of foreign origin: "P - D" "Krakow" chloromycetin has higher potency, purity and soly, is less toxic. 198Tb?

Rybicka, I.

MEISEL, H.; RYBICKA, I.; ALBRYCHT, H.

Origin of antibodies agglutinating Clostridia in healthy human
and animal serum. Med. dosw. mikrob., Warsz. 4 no. 1:77-94 Jan-
Mar 1952. (CJML 22:4)

1. Of the National Institute of Hygiene in Warsaw.

Rybicka, I.

MEISEL, H.; RYBICKA, I.; ZALESKA, H.

Botulin toxin type A. Med. dosw. mikrob., Warsz. 4 no. 2:165-
176 1952. (CMLL 22:4)

1. Of the National Institute of Hygiene in Warsaw.

MEISEL, H.; RYBICKA, I.; ZALESKA, H.

Studies on botulinus toxin A. Med. dosw. mikrob., Warsz. 4 no. 3:
331 1952. (CML 23:3)

1. Summary of work progress presented at 11th Congress of Polish
Microbiologists held in Krakow May 1951. 2. Warsaw.

MEISEL, H.; ALBRYCHT, H.; RYBICKA, I.

Studies on normal agglutinins against anaerobic Sporozoa.
Med. dosw. mikrob., Warsz. 4 no. 3:346-347 1952. (CML 23:3)

1. Summary of work progress presented at 11th Congress of Polish
Microbiologists held in Krakow May 1951. 2. Warsaw.

MEISEL, H.; RYBICKA, I.; ZALESKA, H.

Type A botulin toxin; detoxification of toxins and their antigenic properties. Med. dosw. mikrob. 4 no.4:519-529 1952. (GLML 23:4)

1. Of the National Institute of Hygiene, Warsaw.

MEISEL, H.; RYBICKA, I.

Experimental studies on development of antitoxins in animals immunized
with botulin anatoxin type A. Med. dosw. mikrob. 5 no.1:123-130 1953.
(CIMI 24:5)

1. Of the State Institute of Hygiene in Warsaw.

JANCZURA, Ewa; RYBICKA, Irena; ZALESKA, Helena

Production of diphtheria toxin on semisynthetic media with casein hydrolysate. Med.dosw.mikrob. 7 no.3:263-276 1955.

1. Z Panstwowego Zakladu Higieny w Warszawie.

(DIPHTHERIA,

toxin, prod. on semisynthetic media with casein hydrolysate)

(CULTURE MEDIA

semisynthetic medium with casein hydrolysate for prod. of diphtheria toxin)

(CASEIN,

hydrolysate in semisynthetic medium for prod. of diphtheria toxin)

RYBICKA, I.

EXCERPTA MEDICA Sec.4 Vol.10/4 Microbiology Apr 57

958. RYBICKA I. Państwowy Zakł. Hig., Warszawa. "Powstawanie antytoksyny u świńek morskich uodpornianych anatoksyną błoniczą przygotowaną z podłożu półsyntetycznych (hydrolizat kazeiny). Production of anti-toxin in guinea-pigs immunized by diphtheria anatoxin from semi-synthetic media (casein hydrolysate) MED. DOŚW. MIKROBIOL. 1956. 8/3 (335-344) Graphs 2 Tables 3

In order to obtain preparations as devoid as possible of sensitizing substances, diphtheria toxin was obtained from 6-7 days' cultures of PW8 strain on semi-synthetic media with casein hydrolysate. Detoxification was performed by addition of 0.4-0.5% of formaldehyde, the preparations being left for 30 days at 37° C. The immunizing effect was estimated on guinea-pigs, the resistance on toxin and antitoxin level being tested. The results were at least as good as those with toxoid preparations from Linggood medium.

Milgrom - Zabrze-Rokitnica

EXCERPTA MEDICA Sec.4 Vol.11/5 Microbiology, etc. May 1958

RYBICKA, I.

Sev

1149. THE INFLUENCE OF PENICILLIN ON DIPHTHERIA TOXIN PRODUCTION BY STRAIN PW8 - Wplyw penicyliny na wytwarzanie toksyny przez maczugowca blonicy (szczep PW8) - Rybicka I. Zakt. Badania Surowic i Szczepionek PZH, Warszawa - MED. DOSW. MIKROBIOL. 1957, 9/3 (219-227)

Tables 2

Addition of small quantities of penicillin, 0.037-0.075 U. ($1/4-1/8$ bacteriostatic dose), to the culture medium (liquid casein hydrolysate) have caused morphological and biochemical alterations in diphtheria bacillus (strain PW8). Although the growth of the bacilli was less abundant than in control medium without penicillin the yield of toxin was double. This increase was observed in the presence of penicillin only. Probably the inadequate results of penicillin treatment in diphtheria are connected with this ability of the microorganism.

Zablocki - Lodz

RYBICKA, Irena; SPORZYNSKA, Zdzisława

Determination of the potency of diphtherial anatoxin on white mice. Med. dosw. mikrobiol. 16 no.1:1-12 '64.

1. Z Zakładu Badania Surowic i Szczepionek Państwowego Zakładu Higieny (Kierownik: prof. dr H. Meisel).

RYBICKA, Irena

Sensitivity of the PW8 strain of *Corynebacterium diphtheriae*
to the effect of lysozyme obtained from chicken egg white.
Med. dosw. mikrobiol. 15 no.2:113-124 '63.

1. Z Zakladu Badania Surowic i Szczepionek PZH w Warszawie
Kierownik Zakladu: prof. dr H. Meisel.
(*CORYNEBACTERIUM DIPHTHERIAE*)
(MURAMIDASE) (EGG WHITE)

[POLAND

RYBICKA, Irena, Research Office for Sera and Vaccines (Zakład Badania Surowic i Szczepionek), PZH [Panstwowy Zakład Higieny, State Institute of Hygiene] in Warsaw (Director: Prof. Dr. H. REISEL)

"Susceptibility of the PW8 Strain of Corynebacterium Diphtheriae to Lysozyme."

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 15, No 2, 63, pp 113-124.

Abstract: [Author's English summary modified] Crystalline lysozyme did not affect PW8 cells under the same conditions which produced complete dissolution of *M. lysodeikticus* or *Sarcina lutea*. Bacteriocidal effects were obtained at 37°C were obtained only after prolonged action and high concentration of the lysozyme. 0.1 mg/ml produced no changes; 0.5--2 mg/ml resulted in distinct morphological changes; and 2mg/ml concentrations were effective both on cells washed and resuspended in buffer solution, as well as growing on liquid or solid media. Similar effects were attained on old and recent *C. diph. gravis*, and old *mitis* and *intermedius* strains. 5 Polish, 1 Russian, and 15 Western references.

1/1

RYBICKA, Irena; KUDELSKI, Zygmunt

On antihemolytic properties of diphtherial toxins and anatoxins.
Med.dosw.mikrob. 13 no.2:117-125 '61.

1. Z Zakladu Badania Surowic i Szczepionek PZH w Warszawie.

(DIPHTHERIA immunol) (TOXINS AND ANTITOXINS)

RYBICKA, Irena

Filtrable forms of *Corynebacterium diphtheriae*. Postery hig.
med.dosw. 13 no.4:375-431 J1-Ag '59.
(*CORYNEBACTERIUM DIPHTHERIAE*)

L 21495-66 EWP(v)/EWP(k)/EWP(h)/EWP(l)

SOURCE CODE: CZ/0080/65/000/003/0062/0066

ACC NR: AP6010965

AUTHOR: Wergner, Frantisek (Engineer); Sefcik, Jiri (Engineer); Rybicka, Jiri (Engineer)

ORG: Institute of Automation of the Chemical Industry, Prague (Ustav pro automatizaci chemickeho prumyslu)

TITLE: Automatic control of the distribution of gases into several reactors connected in parallel

SOURCE: Automatizace, no. 3, 1965, 62-66

TOPIC TAGS: analog computer, automatic control, chemical engineering

ABSTRACT: This article describes the chemical process and presents a derivation of equations for the process for solution with a combination of two analog computers. Orig. art. has: 7 figures, 21 formulas, and 2 tables. [JPRS]

SUB CODE: 09, 07 / SUBM DATE: none / ORIG REF: 008 / OTH REF: 002

Card 1/1d

UDC: 66-07-55

WERGNER, Frantisek, inz.; SEFCIK, Jiri, inz.; RYBICKA, Jiri, inz.

Automatic control of gas distribution into several parallel connected reactors. Automatizace 8 no.3:62-66 Mr '65.

1. Institute of Chemical Industry Automation, Prague.

RYBICKA, Krystyna

Studies on the development of cestode cytology. Wiad. parazyt.
11 no.1:3-15 '65

1. Zaklad Parazytologii Polskiej Akademii Nauk, Warszawa.

RYBICKA, Krystyna

Use of radioactive isotopes in helminthology. Wiadomosci parazyt.,
Warsz. 6 no.5:381-397 '60.

1. Zaklad Parazytologii PAN, Warszawa.
(HELMINTHS)
(RADIOISOTOPES)

RYBICKA, K.

SCIENCE

Periodical: KOSMOS. SERIA A: BIOLOGIA. Vol. 7, no. 3, 1958.

RYBICKA, K. The biological species; a review of articles published in the Vestnik Leningradskogo Universit'eta. p. 336.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 3, May 1959
Unclass.

RYBICKA, Krystyna

Attempt of a general approach to the embryology of cyclophyllidean cestodes. Acta parasit Pol 12 no.30/39:327-338 '64.

1. Institute of Parasitology of the Polish Academy of Sciences,
Warsaw.

BOZEK, E.; HRYNKIEWICZ, A.Z.; KONIECZNY, Z.; RYBICKA, M.; SZYMCHYK, S.

Nuclear g-factor of the 113 keV rotational level in ^{177}Hf .
Acta Physica Pol 21 no.3:177 Mr '62.

1. Institute of Nuclear Physics, Cracow, and Institute
of Physics, Jagiellonian University, Cracow.

P/045/62/021/003/005/005
B137/B102

AUTHORS: Bożek, E., Hryniewicz, A. Z., Konieczny, Z., Rybicka, M.,
~~Szymczyk, S.~~

TITLE: Nuclear g-factor of the 113-keV rotational level in ^{177}Hf

PERIODICAL: Acta Physica Polonica, v. 21, no. 3, 1962, 307 - 309

TEXT: Two of the following three quantities are suited for calculating the nuclear factors g_R and g_K : (1) the magnetic moment of the ground state, μ_0 ; (2) the magnetic moment of the excited rotational state, μ_e ; (3) the magnetic dipole transition probability between any two rotational states, $B(M1)$. μ_e was measured for the 113-keV excited level using the method of rotation of the angular correlation pattern for a γ - γ cascade. The source, an aqueous $\text{Lu}(\text{NO}_3)_3$ solution, was situated in an external magnetic field of 26300 gauss, perpendicular to the emission plane of the two γ -rays. The ratio of random to true coincidences was below 5 per cent at $18 \cdot 10^{-9}$ sec resolution. The counters detecting 208 and 113-keV γ -rays enclosed the

Card 1/3

P/045/62/021/003/005/005
B137/B102

Nuclear g-factor of ...

angles 135° and 225° . Measurements yielded the values $g = \pm 0.245 \pm 0.032$ and $\mu_e = (1.10 \pm 0.14) \mu_N$. When calculating the nuclear factors from the values $\mu_o = 0.61 \pm 0.03$ (Speck, see below) of the ground state ($7/2^-$) and $\mu_e = 1.10 \pm 0.14$ of the excited state ($9/2^-$), one obtains $g_R = 0.374 \pm 0.084$ and $g_K = 0.120 \pm 0.030$. From B(M1) and μ_e one obtains $g_R = 0.271 \pm 0.033$ and $g_K = 0.218 \pm 0.034$. As these results are more reasonable, this would seem to indicate that the μ_o determination was not correct. Bernstein and de Boer determined the nuclear factors from μ_o and B(M1) to have the values $g_R = 0.215 \pm 0.014$ and $g_K = 0.162 \pm 0.010$. The disagreement in the results is well beyond the limits of error. Professor H. Niewodniczański, Doctor Z. Szymański, Mgr Z. Bochnacki, and Professor B. Mottelson are thanked for interest. There are 7 non-Soviet references. The four most important references to English-language publications read as follows: Bernstein, E. M., de Boer, J., Nuclear Phys., 18, 40 (1960); Hauser, U., Runge, K., Knissel, G., Nuclear Phys., 27, 632 (1961); Manning, G., Rogers, J. D., Carl 2/3

Nuclear g-factor of ...

P/045/62/021/003/005/005
B137/B102

Nuclear Phys., 15, 166 (1960); Speck, D. R., Bull. Amer. Phys. Soc., 1, 292 (1956).

ASSOCIATION: Institute of Nuclear Physics, Cracow. Institute of Physics, Jagellonian University, Cracow

SUBMITTED: January 24, 1962

Card 3/3

MYSAKOWSKA, Helena; PIETRON, Eugeniusz; SIKORA-ROZINSKA, Maria;
SMAGA, Marta; LITWIN, Barbara; RYBICKA-STRYJECKA, Zofia

Results of antibacterial treatment of pulmonary tuberculosis
in patients with primary resistance to drugs. Pol. tyg. lek.
20 no.19:686-688 10 My '65.

1. Z Katedry Fizjologii AM w Lublinie (Kierownik: doc. dr.
H. Mysakowska).

KOWALEWSKI, J.; HYBICKA-STRYJECKA, Z.

Case of pulmonary and intestinal strongyleidiasis. Wiadomosci parazyt.,
Warsz. 4 no.5-6:521-522 1958.

1. Z II Klin. Chorob Wewn. A. M. w Lublinie.

(STRONGYLOIDIASIS, case reports,
intestines & lungs (Pol))

(LUNG DISEASES, case reports,
strongyloidiasis, with inintestinal invasion (Pol))

(INTESTINES, dis.
strongyloidiasis, with pulm. involvement (Pol))

BARTOSZEWSKI, A.; RYBICKA-STRYJECKA, Z.

Studies on *Trichomonas vaginalis* in Lublin. Wiadomosci parazyt., Warsz.
4 no.5-6:545; Engl. transl. 545-546 1958.

1. A I Klin. Ginekol.-Polozniczej i II Klin. Chor. Wewn. Ak. Med. w
Lublinie.

(VAGINITIS TRICHOMONAS, epidemiology,
in Poland (Pol))

F. BLOK, Jersey, mgr inz.

water supply for industrial metal plants. Gaz woda techn sanit 3'
no. 7:230-232 J1 '64.

L. Proszet, Gliwice.

RYBICKI J.

Produkcja bekonów (Bacon Production) by J. Rybicki. Reported in New Books
(Nowe Książki.) March 1, 1956.

Rybicki, Z.

27

Regeneration of carbon disulfide during production of cut viscose fibers. Z. Rybicki. *Przemysl Chem.* 13, 158-9 (1937).—According to R. regeneration of CS₂ from the viscose process can reach 40-50% provided certain small modification in the process and app. for regeneration are made. These modifications are: (1) the regeneration app. should be under a pressure of 2-3 cm. water below the atm. pressure, thus avoiding loss of CS₂ to the atm.; (2) the flow of water through the regeneration app. should not be greater than 2 cu. m./hr. and the acidity of water should not be greater than 15 g. of H₂SO₄ per l.; (3) the water seal of the regeneration app. should be abandoned and instead a cover with a screwed-on gasket applied; (4) the entrance of the ribbon to the app. for submergence in hot water should be as small as possible; (5) some cold water should be introduced with the ribbon before its submergence in hot water thus reducing an excessive evapn. from the ribbon before its entrance to the proper degasifying chamber; (6) the regeneration app. should work continuously for 2-3 years, i.e., all the time during the period when the main app. for the viscose process is working (this is possible when as a material of construction porcelain and stoneware instead of hard lead, Fe, or 99.9% Al are used); (7) the condenser for CS₂ should be cooled with water of 0-4° (cold brine below 0° should not be used because water vapors will frost and reduce the heat exchange across the walls of condenser); (8) the above condenser should be over-designed by 3-4 times; (9) the pressure drop in the lines conveying vapors from the CS₂ app. and in the lines conveying uncondensed gases to the exhaust should not be over 1 cm. of water pressure; and (10) the cooling surface should be such that the exhaust gases have a temp. not over 0° (the best material of construction for the cooler and receiver is 99.9% Al).

F. J. Hendel

4 ER 2 (7)

2 May

RYBICKA, Krystyna

Morphological and cytochemical studies on the development of the cestode *Diochis ransomi* Schultz 1940. Acta parasit Pol 9 no.22/30: 279-304 '61.

1. Laboratory of General Parasitology, Department of Parasitology, Polish Academy of Sciences. Head of Department Prof., dr. Witold Stefanski. Head of Laboratory Prof., dr. Wlodzimierz Michajlow.

FYBICKA, Krystyna

Embryonic development of *Moniezia expansa* (Rud. 1810) (Cyclophy-
llidea, Anoplocephalidae). Acta parasit Pol 12 no. 9: 313-326 '64.

RYBICKA, Krystyna

Result of the study of parasitic fauna of small mammals (Rodentia and Insectivora) in the Kampinos Forest. Wiadomosci parazyt., Warsz. 4 no.5-6:707-708; Engl. transl. 709. 1958.

1. Z Zakladu Parazytologii PAN w Warszawie.
(HELMINTH INFECTIONS,
in small wild mammals (Pol))

RYBICKA, Krystyna

Discussion on the work of Szulc and Dawtian, Problem of specificity of the host-parasite system. Wiadomosci parazyt., Warsz. 2 no.6:367-372 1956.

1. Z Zakladu Parazytologii Polskiej Akademii Nauk w Warszawie.

(PARASITIC DISEASES, physiology,
specificity of relationship between host & parasite (Pol))

RYBICKA, Krystyna

Tapeworms in birds (excluding Anseriformes) of the lake Druzno;
preliminary note. Wiadomosci parazyt., Warsz. 2 no.5:299-300
1956.

1. Z Zakladu Parazytologii Polskiej Akademii Nauk w Warszawie.
(TAPEWORM INFECTION,
in birds in Poland (Pol))
(BIRDS, diseases,
tapeworm infect. in Poland (Pol))

RYBICKA, Krystyna (Warszawa)

Tapeworms in birds (exclusive of Anseriformes) in the lake
Druzno. Wiadomosci parazyt., Warsz. 2 no. 5 Suppl:195-198
1956.

1. Zaklad Parazytologii UW.

(BIRDS, diseases,

tapeworm infect. in aquatic birds (Pol))

(TAPEWORM INFECTION, epidemiology,
in aquatic birds (Pol))

117 AND 118 ORDERS										119 AND 120 ORDERS									
PROCESSES AND PROPERTIES INDEX																			
S A										A 53 h									
2488. Adiabatic Microcalorimeter to Determine Specific Heat of Solids and Liquids. W. Swietoslawski, M. Rybicka and W. Holodkowska. <i>Acad. Polonaise Sci. et Lettres, Bull. No. 4-5A, pp. 322-326, April-May, 1931. In French.</i>—Corrections for the heat necessary to heat the contained gas, for loss or gain of heat due to adsorption or vaporisation of water (or other liquid) by or from the walls of the apparatus, and for variation in the surrounding temperature, are deduced for the author's adiabatic calorimeter [see Abstract 388 (1930)], and a modified form described. This consists of the microcalorimeter proper, which is placed in a spherical glass or copper vessel, and the whole in a large receptacle filled with water maintained at constant temperature. The substance is heated electrically at a rate of 0.25-0.45° per hr. For determining specific heats two such calorimeters are used, one of silver or copper of known heat capacity, the other similar and containing the liquid under examination for liquids, but made of the metal concerned for a metal. Determined in this way the specific heat at 17° of aluminium is 0.214, of pyridine 0.400. (See following Abstract.) C. A. S.																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
SUBJECT INDEX										AUTHOR INDEX									
SUBJECT INDEX										AUTHOR INDEX									

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESS AND PROPERTIES INDEX																			
<i>BC</i> Adiabatic microcalorimeter adapted to the determination of the specific heat of solid and liquid substances. W. SWENSTON-AWERS, G. RYLAND, and W. STANISLAWSKI (Russ. Chem., 1951, 11, 66-77).—The microcalorimeter consists of a small copper or silver vessel containing the liquid under examination, and is suspended in a spherical vessel immersed in water of known invariable temperature. The substance is heated electrically, the heat supply being such that the rise of temperature amounts to 0.2–0.5° per hr. Where it is desired to determine the specific heat of a metal, the calorimeter vessel has to be made of this metal. Specific heats are determined by using two calorimeter sets, of which one has a known heat capacity. Evaporation or condensation of infinitesimal quantities of water on the calorimeter vessel gives heat effects sufficiently large to render the results inaccurate and the same applies to adsorption or desorption of gases; equilibrium should be attained in this respect before the commencement of determinations. R. TRUSKOWSKI.										<i>A-1</i>									
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION																			

1ST AND 2ND ORDER		PROCESS AND PROPERTIES INDEX		3RD AND 4TH ORDER	
An adiabatic microcalorimeter adapted to the determination of the specific heat of solid and liquid substances. W. SUTOWSKI, S. RYBICKA AND W. SOTOKIOWSKA. <i>Rozw. Chem.</i> 33, 65-77(1961)(76-7 in French).—Working conditions of the microcalorimeter of S. (C. A. 28, 814; 24, 2641) are reviewed, and an equation is established to correct for the loss of heat observed during the experiments. The sp. heat of metals or liquids is measured in an app. consisting of 2 adiabatic calorimeters, one of which is made of metal of known sp. heat, the other of the metal tested. For liquids the second part consists of a Ag or Cu block filled with the liquid tested. Elec. heaters are placed inside the calorimeters. The current, which simultaneously passes both heaters, is regulated so as to give a temp. rise of 0.3-0.5°/hr. The sp. heat calcd. from the heat supplied to both units is 0.214 for Al at 17° and 0.400 for pyridine. J. WIERZBIK.					
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION					
STANDARD					
STANDARD					

BOZEK, E.; LEBEDEV, N.A.; NIEWODNICZANSKI, H.; OGAZA, S.; RYBICKA, M.; STYCZEN, J.

Gamma-gamma directional correlations in ^{146}Eu . *Acta physica*
Pol. 24 no.1:131-133 J1'63.

1. Institute of Nuclear Physics, Krakow. 2. Joint Institute for
Nuclear Research, Dubna, USSR (for Lebedev).

BOZEK, E.; HRYNKIEWICZ, A.Z.; KONIECZNA, Z.; OGAZA, S.; RYBICKA, M.;
SZYMCZYK, S.

The attenuation of the angular correlation of the ^{181}Ta 133-482
KeV cascade in liquids. Inst fiz jadr report no.155:1-9 Ja '62.

1. Institute of Nuclear Physics, Krakow, of the Polish Academy
of Sciences.

RYBICKA, Zofia; WISNIEWSKA, Maria, HANZLIK, Janusz

Two cases of intestinal strongyloidosis treated with gentian violet. Wiad. parazyt. 9 no.6:563-565 '63

1. II. Klinika Chorob Wewnętrznych Akademii Medycznej, Lublin.

RYBICKI, Jerzy

Cooling of cupola furnaces in connection with the general
water management in the metal industry enterprises.
Problemy projekt 10 no.4:107-110 Ap '62.

1. Preczamet, Gliwice.

P/044/61/000/004/002/002
D001/D101

AUTHOR: Rybicki, J. Captain-pilot
TITLE: Taking photographs of the ground from two or more aircraft
PERIODICAL: Wojskowy przegląd lotniczy, no. 4, 1961, 35-42

TEXT: In this article the author discusses the rules which must be followed in order to obtain a series of photographs giving a continuous composite picture of the earth's surface. Taking photographs of the ground from two or more aircraft simultaneously, permits coverage of large areas in a very short time. There are two known methods of taking aerial photographs: individual alignment photographs and individual plane photographs covering two or more alignments. The former method was abandoned about 1952 in favor of the latter one. With cameras of 21 cm focal length photographs can be taken from 300 - 1,200 m altitudes, and with cameras of 40 cm focal length from 550 - 2,000 m altitudes. For accurate covering

Card 1/2

Taking photographs ...

P/044/61/000/004/002/002
D001/D101

of the desired part of the ground it is essential that respective aircraft crews maintain meticulously the predetermined distances between their planes, speed and elevation. Automatic operating cameras are put into operation at a given signal. For calculation of distances between individual planes suitable simple formulas are given as well as information on how a group of three or more aircraft flying in close formation have to fan out in order to take the predetermined task position. There are 5 figures.

Card 2/2

RYBICKI, Jerzy

Observations and conclusions concerning the operation of
pneumatic transport in the casting plant of the Ilmarine
Works in the U.S.S.R. Problemy proj hut maszyn 13 no.3:94-
96. Mr '65.

1. Prozamet, Gliwice.

23026

P/045/61/020/004/004/004
B133/B215

24,6700
AUTHORS:

Bartke, J., Czachowska, Z., Holyński, R., Rybicki, K.

TITLE:

Some examples of interaction of protons of very high energy
with heavy nuclei of photographic emulsions

PERIODICAL:

Acta Physica Polonica, v. 20, no. 4, 1961, 331-339

TEXT: Three stars produced in collisions with nuclei of a photographic emulsion are described. Although they were probably produced in collisions of nucleons with heavy nuclei, they show double maximum angular distributions in contradiction with the hydrodynamic model. Star I: $26 + 47p$; star II: $18 + 41p$; and star III: $15 + 78p$. Stars I and II have been found in a stack of Ilford G5 emulsions irradiated in the Po valley in 1957, and star III was found in an NIKFI-R emulsion stack irradiated near Moscow in 1958. Target diagrams at distances of 600, 1000, and 1400 from the primary interaction enabled the authors to distinguish between the tracks from the secondary interaction and those from the primary event. The angles between the tracks of all primary particles and the star axis were measured. From these angles θ_i , the Lorentz factor of the system can

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All differential angular distributions show strong anisotropy and two maxima which corresponds to a plateau in the integral distribution, as may be seen from Fig. 2a. The angular distributions of gray and black tracks do not deviate significantly from the isotropic distribution. Feinberg (Feinberg, E. L., Uspekhi fiz. Nauk, 70, 333, (1960). (Presented also at the Moscow and Kiev conferences)) has expressed the opinion that there are two types of nucleon-nucleon collisions, namely, head-on collisions and peripheral collisions. The hydrodynamical model can be applied only to the first type which is obviously present (Milekhin, G. A., Zh. eksper. teor. Fiz., 35, 1185, (1958)). According to this theory, the differential angular distribution can be well described by a Gaussian curve which is compared in Fig. 4 with the values obtained. In a paper by Gierula et al. (Gierula, J., Miesowicz, M., Zielinski, P., Acta phys. Polon., 19, 119 (1960)) where the three stars under consideration have been referred to as 171K, 168K, and 200K, respectively, a measure has been defined for the deviation predicted by the two-center model. The deviation is calculated in these units and according to the Kolmogorov-Smirnov test which, in the authors' view, cannot be applied here (Smirnow, H., Recueil Mathematique N.S. 6, 3 (1959)). It is concluded that the experimental facts do not con-

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firm the hydrodynamical model, whereas a two-center model describes the phenomena very well if the "central" collisions take place in a very small "core". The authors thank Professors M. Mięsowicz and J. Gierula. There are 4 figures, 3 tables, and 11 references: 4 Soviet-bloc and 7 non-Soviet-bloc.

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